

Amendments to the Specification

Please replace the paragraph beginning at page 4, line 19, with the following rewritten paragraph:

An overall block diagram of a first embodiment of the invention is shown in Figure 1. As shown in Figure 1, call agent 101 sends commands to the voice gateway 102 indicating how the call should be set up. After the call is set up, the call itself is sent to the voice gateway 102 which in turn forms and passes packets to the internet 103. Call agent 101 is conventional, and it passes calls to voice gateway 102 using a standard protocol. Call agents connected to voice gateways are in relatively widespread use. Protocols for connecting call agents to voice gateways are known in the art. Examples of such protocols are the protocols known as MGCP and H.248.

Please replace the paragraph beginning at page 5, line 33, with the following rewritten paragraph:

Two pools are used. The first pool is a Load Balancing pool (referred to as the LB pool) and is illustrated in Figure 2. Each entry in the LB pool indicates the DSPs (as indicated by 201-204) that are handling a particular number of calls. For example, in the illustration given in Figure 2, the entry labeled "load 3" indicates the four DSPs 204 each of which is handling three calls at that particular time. The number of entries in this pool is equal to the maximum number of calls that can be handled by a single DSP. Initially all DSPs in the system are placed in the "0th" 0th entry of the LB pool. A pointer ~~201~~ 210 is maintained. This pointer always points to the entry that indicates the DSPs which ~~has~~ have the lightest (lowest) load.

Please replace the paragraph beginning at page 8, line 19, with the following rewritten paragraph:

The entries in the BF pool will first be explained ignoring the issues related to FCP. Considerations related to FCP will be explained later. Ignoring issues related to FCP, each entry in the BF pool indicates the DSPs that have just enough resources available to handle the resources required by a codec in the particular codec resource group (as indicated by 301, 303, and 304). The number of entries in the BF pool equals the number of different resource groups of codecs, where the ~~codecs~~ codecs in each resource group use approximately the same amount of resources. For example, in the specific embodiment shown, the codecs are divided into four resource groups. The codecs in each resource group utilize approximately the same amount of resources. Each particular entry in the BF pool lists or indicates the DSPs that have only enough remaining resources to handle the resources required by the codecs in one particular resource group. Codecs in codec resource group 1 require the largest amount of resources and codecs in codec resource group 4 require the least amount of resources. For example in the illustration shown in figure 3, DSPs 2 and 4 only have enough resources to handle the codecs in codec resource group 4. The number of entries in the BF pool is equal to the number of codec resource groups into which the codecs used in the particular system fall.

Please replace the paragraph beginning at page 7, line 9, with the following rewritten paragraph:

A DSP is moved from the LB pool to the BF pool when the DSP has just enough resources remaining such that the particular DSP can only handle one more codec or when a DSP is handling a call one more codec or when a DSP is handling a call with a FCP of the

codecs in one of the resource groups. When a DSP is moved to the BF pool it is placed in the highest possible resource group depending on the amount of capacity remaining in the particular DSP (or when moved due to a FCP it is placed where appropriate for the FCP). For example, let us assume that a DSP is handling three calls and that a fourth call is assigned to the DSP based upon the DSP's position in the LB pool. Let us assume that after the fourth call is assigned to the particular DSP, that DSP only has enough resources left to handle a codec that is in codec resource group 2. In this situation the DSP will be moved from the LB pool to the group 2 position in the BF pool.

Please replace the paragraph beginning at page 7, line 32, with the following rewritten paragraph:

As illustrated in Figure 3, there are four resource groups in the BF pool. However, the dotted lines are intended to indicate that in other embodiments, there could be as many resource groups as are required by the particular implementation. It should be understood that Figure 3 is merely an example and in any system the DSPs that are in the BF pool ~~changes~~ change over time.

Please replace the paragraph beginning at page 8, line 22, with the following rewritten paragraph:

As indicated by block 413, a BF pool is also created. The number of entries in the BF pool is equal to the maximum number of codec resource groups, where the codecs in each codec resource group requires different allocation of DSP capacity. That is, the codecs which the system will handle are divided into codec resource groups. Each codec resource group only contains codecs that require the same amount of resources. Furthermore, all of the codecs in each codec resource group are subject to the same FCP. Naturally other normal types of initialization ~~is~~ are also done at system initialization.

Please replace the paragraph beginning at page 8, line 31, with the following rewritten paragraph:

Figure 5 is a block diagram of the program that selects a DSP for use by a particular call. As indicated by block 501 an incoming call triggers a request to allocate a DSP to the particular call. A determination is made as to what codec is being used as indicated by block 502.

Please replace the paragraph beginning at page 9, line 16, with the following rewritten paragraph:

As indicated by block 505, if there is no appropriate entry in the BF pool, the LB pool is interrogated to select a DSP. A DSP with a load indicated by the pointer 210 ~~is selected~~ (i.e., a DSP with the lightest load) is selected as indicated by block 506. If there are multiple DSPs in an entry, any one of them can be selected at random; however, in the interest of speed, the first one in a list is selected.

Please replace the paragraph beginning at page 9, line 33, with the following rewritten paragraph:

When a DSP is selected as indicated by either blocks 504, 506 or 509 (block 507) the system goes on to the operation as indicated in Figure 6 (block 601). Each DSP has an associated record. When the DSP is allocated (or de-allocated) the record for the particular DSP is so marked as indicated by block 602. The available capacity of the DSP is updated based on the operation (allocation or de-allocation). The record for each DSP includes information concerning the number of calls currently allocated to the DSP, the amount of resources used by each of these calls, and information concerning the FCP for any of the calls. This record is updated each time a call is allocated or de-allocated to a DSP.

Please replace the paragraph beginning at page 10, line 9, with the following rewritten paragraph:

As indicated by block 603, a determination is made as to whether or not the selected DSP has less remaining capacity than that required by any of the codec resource groups. If that is the case, the DSP is moved to the appropriate entry in the BF pool as indicated by block 604.

Please replace the paragraph beginning at page 10, line 20, with the following rewritten paragraph:

As indicated by block 605, a check is made to determine if the particular DSP is executing any codecs that have FCP properties. If that is the case, the DSP is moved to the entry in the BF pool that corresponds to codecs with the particular FCP as indicated by block 604. If there are no FCP codecs on a DSP, the DSP is moved to the LB entry that matches the number of calls on that DSP. This is indicated by block 607. In this situation the system also proceeds to the operation shown on Figure 7 (at block 701) as indicated by block 608.

Please replace the paragraph beginning at page 11, line 2, with the following rewritten paragraph:

If the position is not empty, the test indicated by block 705 is made. That is, a check is made to see if any DSPs have been moved into a position such that the position of the current pointer 210 needs to be moved. If that is not the case no update of the LB pool pointer is required as indicated by block 703. If that ~~it is not~~ the case, the position of the pointer in the LB pool is updated as indicated by block 706.

Please replace the paragraph beginning at page 11, line 21, with the following rewritten paragraph:

It should be noted that when codecs are assigned to a codec resource group, there can be some range of resources utilization within which a codec will be assigned to a particular resource group. That is, all of the codecs assigned to one particular codec resource group in the best fit pool merely all need use substantially the same amount of DSP resources. They need not utilize exactly the same amount of resources. Thus ~~a~~ as used herein the words “using the same amount of resources” should be interpreted as meaning “using substantially the same amount of ~~resources~~” resources.”